REMARKS

Prior to examining the claims on the merits, based on the concurrently-filed RCE, the Examiner is requested to consider the preliminary amendments of the claims.

Claims 1 and 3-39 are all the claims presently pending in the application. Claims 1, 13, 20, 25, and 33 are amended to more clearly define the invention. Claim 39 has been added. Claim 2 remains canceled. Claims 1, 13, 20, 25, and 33 are independent.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicants also note that, notwithstanding any claim amendments herein or later during prosecution, Applicants' intent is to encompass equivalents of all claim elements.

Claims 13-20 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Claims 1 and 3-38-stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burke, et al. (U.S. Patent No. 6,789,252) in view of Sheard, et al. (U.S. Patent No. 6,208,345), and further in view of Mitchell, et al. (U.S. Publication No. 2005/0229186).

This rejection is respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

An exemplary embodiment of the claimed invention, as recited by, for example, independent claim 1, is directed to a method of discovering a business object definition that includes receiving an object and a collaboration code, and determining a business object definition for the object based upon the collaboration code. The collaboration code determines the business object definition for the object without pre-defined business object

definitions, if the object does not conform to a known business object definition.

Conventional systems and methods may include object discovery agents that produce business object definitions that including mapping information between object attributes and data fields in the application data sources. However, these methods and systems must subscribe in advance to the pre-defined business object definitions, and can only exchange business objects of the business object definitions. Changes in business object definitions often render these conventional systems and methods useless. Further, these systems and methods often need to subscribe to a very large number of business object definitions. (See Application from page 2, lines15-25 to page 3, lines 1-20).

In stark contrast, the present invention is capable of determining a business object definition for an object based upon a collaboration code without need to include pre-defined business object definitions. (See Application at page 6, lines 15-22). In this manner, the present invention is capable of reverse engineering the composition of a business object thereby obviating the above-described problems.

II. THE 35 U.S.C. § 101 REJECTION

The Examiner alleges that claims 13-20 are directed to non-statutory subject matter.

In particular, the Examiner alleges that claims 13-20 are directed to "software per se," and requires that the Applicants amend the claims to recite hardware

However, the Applicants maintains that claims 13-20 are system claims and are clearly not directed to either software modules, or "software per se" as alleged by the Examiner. Also, Applicants submit that systems claims are not required to be directed to any hardware and it is improper for the Examiner to attempt to require the Applicants to amend these claims to recite hardware in the body. Instead, in systems claims reciting means-plus-

function language, Applicants submit that the Examiner is required to consult the specification to identify the all structures that define the "means".

Further, Applicants submit that the results of the claimed system as recited by at least claims 13 and 20 are useful, tangible, and concrete because the results of the claimed system are useful for determining an object definition based on the received object and collaboration code, the object definition has tangible application of meeting a system design target, and the invention is concrete, because the invention provides a repeatable solution, within the constraints of the principles of uncertainty upon which the present invention is based.

Also, the Examiner fails to provide any case law holding to support his allegations, or case law requiring that a systems claim be structurally and functionally interrelated to a hardware. This "software *per se*" test seems to have originated somewhere within the USPTO and seems to have taken on a life of its own. None of the Examiners using this rejection, including the instant rejection, has provided a case law citation, so that the terminology "software *per se*" can be reasonably defined.

Applicants can only speculate on what "software *per se*" is intended to mean, as used by this and other Examiners. Perhaps this terminology is intended to meaning the description of a software program as defined in terms of functional language.

Therefore, presuming, *arguendo,* something along this description as being the intended definition for "software *per* se", Applicants bring to the Examiner's attention the holding of *AT&T Corp., v. Excel Communications, Inc.* 172 F.3d 1352; 1999 U.S. App. LEXIS 7221; 50 U.S.P.Q.2D (BNA) 1447. This holding upheld the statutory subject matter of US Patent 5,333,184 to Doherty et al. Therefore, as only one example of the claims that were upheld in *AT&T*, and presumed to be "software *per se*", is claim 1, as follows:

A method for use in a telecommunications system in which interexchange

calls initiated by each subscriber are automatically routed over the facilities of a particular one of a plurality of interexchange carriers associated with that subscriber, said method comprising the steps of:

generating a message record for an interexchange call between an originating subscriber and a terminating subscriber; and

including, in said message record, a primary interchange carrier (PIC) indicator having a value which is a function of whether or not the interexchange carrier associated with said terminating subscriber is a predetermined one of said interexchange carriers.

Therefore, presuming that "software *per se*" means describing software using functional steps, Applicants bring the *AT&T* holding to the attention of the Examiner and point out that, if the USPTO intends to continue rejecting software-related inventions based on wording of claims, then it is incumbent on the USPTO to develop some clear guidelines on what choice of wording is acceptable so that all examiners are using the same standard of review, instead of having undefined tests such as "software *per se*", which is not defined in the rejection, in the Guidelines, in the MPEP, or in any case law.

Reconsideration and withdrawal of the rejection is respectfully requested.

III. THE PRIOR ART REJECTION

The Examiner alleges that the Burke, when combined with Sheard and Mitchell, renders obvious claims 1 and 3-38. Applicants submit, however, that there are elements of the claimed invention which are neither taught nor suggested by Burke or Sheard.

Claim 1 recites, inter-alia:

wherein said collaboration code determines said business object definition for said object without pre-defined business object definitions, if the object does not conform to a known business object definition."

Claims 13, 20, 25, and 33 recite similar claim features.

As conceded by the Examiner, neither Burke nor Shear teach or suggest, *"receiving*

an object and a collaboration code." (Office Action, page 3, paragraph 6). Mitchell also fails to remedy Burke's and Sheard's deficiencies,

That is, Mitchell does not teach or suggest the above claimed features, *"wherein said collaboration code determines said business object definition for said object without pre-defined business object definitions,"* because Mitchell is not concerned about discovering a business object definition. Instead, Mitchell only teaches a method and apparatus teaches a method and apparatus for dynamic runtime object aggregation.

More specifically, Mitchell teaches that aggregation object may include adding new inheritance, data, and/or functionality to previously defined and implemented objects at runtime. (Paragraph 21).

Mitchell also teaches that aggregation of its invention may depend on: the existence of an object with meta data that may be discovered or reverse engineered, a middle-ware framework in which the aggregation may occur, and importation of the object into the middleware framework. (Paragraph 22). However, the discovery or reengineering for the meta data is done (on the previously defined object) so that the object can be imported into the middleware framework and gain access to the meta types for this (previously defined) runtime objects, (Paragraph 33) and so that the aggregation that occurs in the middleware framework may not affect the imported object per se.

Although a Meta Data Definition Object (MDDO) is created from the discoverable type definitions of the imported object (paragraph 34), Mitchell fails to teach or suggest that the definitions for the MDDO itself is determined.

The Examiner appears to have equated Mitchell's meta data as the collaboration code of the claimed invention, (Office Action, page 4, lines 7-9). However, the Examiner confuses the Mitchell's application of the meta data to aggregate new inheritance, data, or functionality

to previously defined and implemented objects at runtime as *"wherein said collaboration code determines said business object definition for said object without pre-defined business object definitions"*, two very different applications.

However, to expedite prosecution, and to further define the claim features of the present invention, Applicants amend claims 1, 13, 20, 25, and 33 to recite, *"wherein said collaboration code determines said business object definition for said object without pre-defined business object definitions, if the object does not conform to a known business object definition."* Support for these features is disclosed in at least page 13, lines 8-20) of the specification. For reasons already discussed, Burke, Sheard, and Mitchell do not teach or suggest these claimed features.

Since there are features of the claims that are neither taught nor suggested by the above-cited references, reconsideration and withdrawal of the rejections is respectfully requested.

IV. NEW CLAIM

New claim 39 is added to claim additional features of the invention and to provide more varied protection for the claimed invention. Support for claim 18's recited claim features can be found in at least page 11, line 14-page 12, line 5 of the specification. The claim is independently patentable because of the novel and non-obvious features recited therein.

Claim 39 is patentable over any combination of the cited references at least based on similar reasons to those set forth above with respect to claim 1.

V. FORMAL MATTERS AND CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 1 and 3-39, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

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